NATURAL WHEAT-RYE HYBRIDS. ¹

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INTRODUCTION.
Artificial hybrids of rye on wheat have been made by many different plant breeders. The natural hybrid, however, apparently has been observed but seldom. The only reported instance of a possible natural wheat-rye hybrid, so far as the writer has found, is that cited by Fruwirth² (p. 184) as follows:

"Miczyński ("Kosmos" r. 30. Lwów, 1905) harvested some open fertilized seeds which gave when grown individuals which by their long, pressed-together glumes and their manner of standing open when in bloom were recognized as hybrids. These were, however, more similar to wheat and were not pubescent below the head."

The original article cited is not in the Congressional Library or in any other American library so far as ascertained, and has not been seen by the writer. It is possible that these plants grown by Miczyński were natural wheat-rye hybrids, although the writer has never observed wheat-rye hybrids that were not pubescent below the head.

In the summer of 1914 four separate instances of natural wheat-rye hybrids came to the notice of the writer. Three plants were observed on Arlington Farm, Rosslyn, Va., one by Mr. H. P. Ames, one by Mr. T. R. Stanton, and one by the writer. Two heads, also undoubtedly wheat-rye hybrids, were sent to the writer in June, 1914, by L. Robinson, of Brush Creek, Tenn., who writes: "Will you please tell me what this is? I pulled it out of a field of wheat. It has the appearance of wheat and rye both."

DESCRIPTION OF ARTIFICIAL HYBRID.
As a basis for the examination of these plants which are believed to be natural wheat-rye hybrids, comparison with an artificial hybrid produced by the writer will be made. In the spring of 1913, 11 flowers

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